[COMMITTEE PRINT]

ENERGY TAXATION: STATISTICAL DATA

STUDY NO. 2

PREPARED FOR THE USE OF THE

COMMITTEE ON WAYS AND MEANS

BY THE STAFF OF THE

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Source of tables: Standard & Poor's Industrial Survey—Tables 1–4, 6, 7 and 11–14; International Economic Report of the President, 1974—Table 5; Oil Company Profitability, data compiled by the staff of the Senate Finance Committee. Tables 17–19, 21–24; the Chase Manhattan Bank, Capital Investments of the World Petroleum Industry 1971, Tables 8–10, and 15–17; Staff, Joint Committee on Internal Revenue Taxation, Tables 25–28.

A. PETROLEUM STATISTICS ON DEMAND, PRODUCTION, AND RESERVES

TABLE 1.—WORLD DEMAND FOR COMMERCIAL ENERGY (EXCLUDING U.S.S.R., EASTERN EUROPE, AND CHINA)

Year	Percentage					Total (million barrels per day oil equivalent)
	Solid fuels	Petroleum fuels	Natural gas	Hydro-electric	Nuclear electric	
1985 [1]	14	54	16	6	10	145.0
1980 [1]	15	55	17	6	7	115.0
1975 [1]	18	55	18	6	3	90.0
1971	21	54	18	6	1	72.5
1970	22	53	18	6	1	69.5
1965	30	46	17	7	(.2)	52.8
1960	36	41	16	7	(.03)	40.9
1955	44	37	13	6		35.1
1950	52	32	10	6		28.6
1945	60	25	10	5		21.8
1940	69	21	6	4		22.1
1935	70	21	5	4		18.1
1930	75	17	5	3		19.4
1925	81	14	3	2		18.0
1920	86	9	2	3		16.6

[1] Estimated.

Source: Royal Dutch/Shell Group.

TABLE 2.—WORLD CRUDE OIL RESERVES

[In millions of barrels]

Area	1971		1972	
	Amount	Percent of World	Amount	Percent of World
United States	[1] 45,367	7.0	[1] 43,123	6.3
Canada	[1] 11,070	1.7	[1] 11.500	1.7
Mexico	4,500	.0	2,800	0.4
South America	27,059	4.2	32,600	4.8
Venezuela	13,900	2.2	13,700	2.0
Europe (Western)	14,222	2.2	15.000	2.2
Middle East	367,386	57.2	355.852	52.3
Iran	55,500	8.7	65.000	9.6
Iraq	35,990	5.6	29.000	4.3
Kuwait	66,023	10.2	64.900	9.5
Saudi Arabia	145,300	22.7	138.000	20.3
Neutral Zone	24,350	3.8	16,000	2.4
Other Middle East	40,223	6.2	42,952	6.2
Africa	58,886	9.1	106.402	15.5
Oceania	14,472	2.3	14.922	2.2
Others	1,133	0.2	1.000	2
Total free World	544,095	84.6	583.199	85.6
U.S.S.R. and Red China	98,500	15.4	98.000	14.4
Total World	642,595	100.0	681.199	100.0

[1] Including natural gas liquids.

Sources: World Oil, The Oil and Gas Journal.

TABLE 3.—WORLD CRUDE OIL PRODUCTION

[In thousands of barrels per day]

Area	1970	1971	1972
North America	11,324	11,212	11,406
United States[1]	9,637	9,463	9,478
Canada	1,200	1,323	1,488
Mexico	487	427	441
South America	4,600	4,486	4,164
Argentina	393	423	435
Brazil	164	172	167
Columbia	200	204	200
Venezuela	3,708	3,549	3,203
Western Europe	325	296	275
West Germany	151	148	140
Africa	6,050	5,788	5,462
Algeria	1,022	794	794
Egypt	327	294	224
Gabon	109	115	120
Libya	3,321	2,761	2,240
Middle East	14,017	16,536	17,795
Far East		637	787
Oceania	1,220	1,394	1,664
Total world	37,856	40,483	41,698

[1] Including Alaska and Hawaii.

Source: World Oil.

TABLE 4.—SUPPLY AND DEMAND FOR ALL OILS

[In thousands of barrels]

Year	Domestic crude oil production	Natural gasoline and benzol production	Crude oil imports	Refined products imports	Changes in all stocks	Domestic crude direct demand	Domestic gasoline demand	Domestic demand, all fuel oils [1]	All other domestic demand	Crude oil exports	All other exports [2]	Total consumption
1972	3,459,052	632,879	811,135	924,121	−84,968	10,907	2,350,405	1,991,696	1,643,512	187	81,281	6,071,722
1971	3,453,914	617,815	613,417	819,463	+26,086	10,561	2,213,168	1,809,361	1,530,031	503	81,342	5,638,853
1970	3,517,450	605,916	483,293	764,769	+37,738	9,388	2,131,252	1,731,499	1,501,722	4,991	89,467	5,463,259
1969	3,371,751	580,241	514,114	641,437	−17,449	9,229	2,042,546	1,622,186	1,495,198	1,436	83,449	5,249,056
1968	3,329,042	553,688	472,323	567,046	+55,451	9,118	1,956,000	1,542,778	1,398,027	1,802	82,742	4,990,467
1967	3,215,742	514,456	411,649	514,342	+63,006	7,677	1,842,686	1,470,035	1,160,812	[3] 26,541	85,519	4,593,270
1966	3,027,763	468,635	447,120	492,042	+38,121	8,111	1,793,381	1,423,810	1,099,767	1,477	70,923	4,397,469
1965	2,848,514	441,556	452,040	448,732	−2,891	8,383	1,750,028	1,362,825	1,004,222	1,097	67,191	4,193,746
1964	2,786,822	422,500	438,643	388,093	+3,676	8,077	1,685,457	1,305,005	959,964	1,363	72,516	4,032,382
1963	2,752,723	400,966	412,660	362,053	+1,263	7,683	1,632,103	1,286,178	925,261	1,698	74,216	3,927,139

[1] Including fuel oil laden on vessels in foreign trade.
[2] Including exports of benzol as such.
[3] Reflects Middle East crisis.

Sources: Bureau of Mines, American Petroleum Institute.

TABLE 5.—ESTIMATED CONSUMPTION AND IMPORTS OF PETROLEUM BY MAJOR AREA[1]—1973

[In thousand barrels per day and percent of consumption]

		Origin of imports														
			Arab countries													
	Total consumption	Total imports	Total Arab	Saudi Arabia	Kuwait	Libya	Iraq	Abu Dhabi	Algeria	Other Arab	Iran	Venezuela	Indonesia	Canada	Nigeria	Others
Total	58,000	33,000	17,850	7,500	3,000	2,100	1,800	1,300	1,000	1,150	5,600	3,100	1,200	1,100	1,900	2,250
Percent	100	56.9	30.8	12.9	5.2	3.6	3.1	2.2	1.7	2.0	9.7	5.3	2.1	1.9	3.3	3.9
United States	17,300	6,200	1,590	590	160	350	50	160	140	140	420	1,840	250	1,100	550	450
Percent	100	35.8	9.2	3.4	0.9	3.0	0.3	0.9	0.8	0.8	2.4	10.6	1.4	6.4	3.2	2.6
Western Europe	15,400	15,200	10,600	4,000	1,750	1,590	1,220	600	670	770	1,900	440	(2)	....	1,130	1,130
Percent	100	98.7	68.8	26.0	11.4	10.3	7.9	3.9	4.4	5.0	12.3	2.9	(2)	....	7.3	7.3
Japan	5,400	5,400	2,390	1,240	540	20	(2)	430	....	160	1,730	10	840	....	100	330
Percent	100	100	44.3	23.0	10.0	0.4	(2)	8.0	....	3.0	32.0	0.2	15.6	....	1.9	6.1
Canada	1,800	1,000	220	80	(2)	40	20	60	....	20	180	470	(2)	....	80	50
Percent	100	55.6	12.2	4.4	(2)	2.2	1.1	3.3	....	1.1	10.0	26.1	(2)	....	4.4	2.8
Communist area	9,100	500	400	....	....	100	200	(2)	50	50	100	....	....	....	....	....
Percent	100	5.5	4.4	....	....	1.1	2.2	(2)	0.5	0.5	1.1	....	....	....	....	....
Others	9,000	4,700	2,650	1,590	550	(2)	310	50	140	10	1,270	340	110	....	40	290
Percent	100	52.2	29.4	17.7	6.1	(2)	3.4	0.6	1.6	0.1	14.1	3.8	1.2	....	0.4	3.2

[1] This table allocates imports on a direct and indirect basis—i.e., refined products from export refineries are traced to the source of the crude oil.

[2] Negligible.

Source: International Economic Report of the President, transmitted to the Congress February 1974, p. 107.

TABLE 6.—SIGNIFICANCE OF U.S. IMPORTS

[In thousands of barrels per day]

	Domestic product demand	Imports			Imports of refined products as percent of demand	Total imports as percent of demand
		Crude	Refined products	Total		
Year:						
1972	16,354	2,216	2,525	4,741	15.4	29.0
1971	15,213	1,680	2,245	3,925	14.8	25.8
1970	14,697	1,324	2,095	3,419	14.3	23.3
1969	14,137	1,409	1,757	3,166	12.4	22.4
1968	13,393	1,290	1,550	2,840	11.6	21.2
1967	12,650	1,128	1,409	2,537	11.2	20.2
1966	12,085	1,225	1,348	2,573	11.2	21.3
1965	11,513	1,238	1,230	2,468	10.7	21.4
1964	11,023	1,198	1,060	2,258	9.6	20.5
1963	10,743	1,131	992	2,123	9.2	19.8

Sources: Bureau of Mines, American Petroleum Institute.

B. STATISTICS ON PETROLEUM INDUSTRY INVESTMENTS

TABLE 7.—PETROLEUM INDUSTRY INVESTMENTS

[In properties, plant and equipment. Dec. 31, 1971]

	Millions of dollars			
	United States	Foreign countries	Total	Percent of total
Crude oil, natural gas	52,475	26,910	79,385	35.6
Natural gas liquids plants	3,325	2,485	5,810	2.6
Total production	55,800	29,395	85,195	38.2
Pipelines	6,975	7,720	14,695	6.6
Tankers	1,275	23,675	24,950	11.3
Refineries	13,550	29,565	43,115	19.3
Chemical plants	7,150	7,815	14,965	6.7
Marketing	13,500	20,330	33,830	15.2
Other	3,200	2,800	6,000	2.7
Total	101,450	121,300	222,750	100.0

Source: Chase Manhattan Bank.

TABLE 8.—CAPITAL EXPENDITURES BY AMERICAN COMPANIES, 1971

[In millions of dollars]

	United States	Canada	Venezuela	Other Western Hemisphere	Western Europe	Africa	Middle East	Far East	Foreign flag tankers	Foreign
Crude oil and natural gas	2, 975	400	130	250	275	375	175	250	0	1, 855
Natural gas liquids plants	175	120	5	5	50	10	5	15	0	210
Total production	3, 150	520	135	255	325	385	180	265	0	2, 065
Pipe lines	530	40	10	100	50	5	25	10	0	240
Tankers	125	0	0	0	0	0	0	0	600	600
Refineries	1, 005	100	35	300	500	15	25	200	0	1, 175
Chemical plants	460	10	0	10	75	0	0	20	0	115
Marketing	1, 225	95	0	60	425	40	5	175	0	800
Other	280	10	0	15	55	5	15	30	0	130
Total	6, 775	775	180	740	1, 430	450	250	700	600	5, 125

TABLE 9.—GROSS INVESTMENT OF AMERICAN COMPANIES, DEC. 31, 1971

[In millions of dollars]

	United States	Canada	Venezuela	Other Western Hemisphere	Western Europe	Africa	Middle East	Far East	Foreign flag tankers	Foreign
Crude oil and natural gas	49, 250	3, 680	3, 360	1, 230	725	1, 790	1, 595	680	0	13, 060
Natural gas liquids plants	3, 225	655	210	150	150	200	40	140	0	1, 545
Total production	52, 475	4, 335	3, 570	1, 380	875	1, 990	1, 635	820	0	14, 605
Pipe lines	6, 575	440	385	325	480	335	650	80	0	2, 695
Tankers	1, 275	0	0	0	0	0	0	0	7, 375	7, 375
Refineries	12, 285	1, 055	525	1, 345	4, 050	170	600	1, 730	0	9, 475
Chemical plants	6, 385	395	0	295	1, 170	10	40	380	0	2, 290
Marketing	12, 515	1, 215	45	680	3, 605	445	105	1, 380	0	7, 475
Other	3, 085	160	35	40	280	25	410	150	0	1, 100
Total	94, 595	7, 600	4, 560	4, 065	10, 460	2, 975	3, 440	4, 540	7, 375	45, 015

TABLE 10.—NET INVESTMENT OF AMERICAN COMPANIES, DEC. 31, 1971

[In millions of dollars]

	United States	Canada	Venezuela	Other Western Hemisphere	Western Europe	Africa	Middle East	Far East	Foreign flag tankers	Foreign
Crude oil and natural gas	22,775	2,700	810	630	525	1,220	845	345	0	7,075
Natural gas liquids plants	1,645	510	120	70	140	175	35	115	0	1,165
Total production	24,420	3,210	930	700	665	1,395	880	460	0	8,240
Pipe lines	3,550	250	60	225	360	250	185	55	0	1,385
Tankers	600	0	0	0	0	0	0	0	4,690	4,690
Refineries	5,085	410	155	870	2,640	110	200	1,045	0	5,430
Chemical plants	3,555	270	0	240	910	10	40	305	0	1,775
Marketing	8,045	680	25	405	2,255	240	45	800	0	4,450
Other	1,745	100	20	25	225	25	120	125	0	640
Total	47,000	4,920	1,190	2,465	7,055	2,030	1,470	2,790	4,690	26,610

TABLE 11.—OIL WELLS DRILLED

	Oil	Gas	Service	Dry	Total	Percent of dry to total wells drilled	Average depth per well
Year:							
1972	11,139	4,777	777	11,171	27,864	40.1	5,026
1971	11,510	3,399	720	10,448	26,077	40.1	4,949
1970	12,992	3,812	1,343	11,233	29,380	38.2	5,022
1969	14,368	4,083	1,866	13,736	34,053	40.3	4,975
1968	14,331	3,456	1,439	12,812	32,038	40.0	4,849
1967	15,320	3,619	1,396	13,223	33,558	39.4	4,526
1966	16,780	4,377	1,497	15,227	37,881	40.2	4,557
1965	18,761	4,724	1,922	16,025	41,432	38.7	4,415
1964	20,620	4,855	2,273	17,488	45,236	38.7	4,326
1963	20,288	4,751	2,267	16,347	43,653	37.4	4,312

Sources: Oil and Gas Journal, World Oil.

TABLE 12.—DRILLING OPERATIONS

Year	Exploratory wells	Field wells	Wildcat percent of field	Year	Exploratory wells	Field wells	Wildcat percent of field
1972	8,357	29 510	28.3	1966	10,313	27,568	37.4
1971	7,000	26,532	26.4	1965	9,466	31,957	29.6
1970	7,693	21,774	35.3	1964	10,747	34,489	31.2
1969	9,701	24,352	39.8	1963	10,664	32,989	32.3
1968	8,879	24,035	36.9	1962	10,797	35,382	30.5
1967	8,878	24,940	35.6	1961	10,992	35,970	30.4

Source: Oil & Gas Journal from data published by American Association of Petroleum Geologists.

TABLE 13.—PRODUCING OIL WELLS IN THE UNITED STATES

As of Dec. 31	Number of active wells	Average production per well per day (barrels)	As of Dec. 31	Number of active wells	Average production per well per day (barrels)
1972	503,505	18.8	1967	566,869	15.5
1971	512,471	18.5	1966	570,930	14.5
1970	517,177	18.6	1965	579,875	13.4
1969	537,640	17.2	1964	585,255	13.1
1968	548,331	16.6	1963	587,777	12.8

TABLE 14.—NEW FIELD DISCOVERIES

Year	Total exploratory wells drilled	Barrels of new oil reserves added (thousands)	New field natural gas discoveries (billion cubic feet)
1972	8,357	123,210	1,463
1971	7,000	91,469	1,318
1970[1]	7,693	9,852,512	27,770
1969	9,701	96,435	1,770
1968	8,879	166,291	1,376
1967	8,878	125,105	3,171
1966	10,313	160,384	2,947
1965	9,466	237,335	------------------
1964	10,747	126,682	------------------
1963	10,664	96,732	------------------

[1] Includes Prudhoe Bay, Alaska, estimates for the first time.

Sources: American Petroleum Institute, American Association of Petroleum Geologists.

TABLE 15.—VOLUMETRIC STATISTICS—1971

[Thousand barrels per day]

Area	Crude oil production	Refinery runs	Liquid petroleum consumption
United States	9, 529	11, 200	15, 210
Foreign:			
Canada	1, 350	1, 392	1, 535
Venezuela	3, 549	1, 225	211
Other Western Hemisphere	1, 525	4, 079	2, 852
Western Europe	357	13, 020	13, 302
Africa	5, 679	631	986
Middle East	16, 368	2, 290	1, 202
Far East	1, 594	6, 048	6, 977
Total	30, 422	28, 685	27, 065
World	39, 951	39, 885	42, 275

TABLE 16.—TANKER FACILITIES, WORLD—DEC. 31, 1971

Flag	Number	Deadweight tonnage	
		Thousand	Percent of total
United States [1]	251	7, 652	4. 2
Panama	175	5, 863	3. 2
Norway	391	23, 089	12. 6
Greece	229	8, 912	4. 8
United Kingdom	442	23, 112	12. 6
Liberia	850	47, 928	26. 2
Japan	286	22, 822	12. 5
Others	1, 055	43, 760	23. 9
Total	3, 679	183, 138	100. 0

[1] Excludes U.S. Government vessels.

Source: Sun Oil Co.—Economics Department.

TABLE 17.—EXPLORATION AND DEVELOPMENT EXPENDITURES—UNITED STATES, 1971

	Million
Lease acquisitions	$300
Producing wells	2, 095
Dry holes	790
Total capitalized	[1] 3, 185
Geological and geophysical expense	575
Lease rentals	140
Total exploration and development expenditures	3, 900

[1] Excludes natural gasoline plants of $200,000,000.

TABLE 18.—INVESTMENT PLANS OF MAJOR PETROLEUM COMPANIES:[1] INCREASE IN 1974 OVER ESTIMATED 1973 EXPENDITURES

[Dollar amounts in millions]

Company	1973	1974	Percent increase
Atlantic Richfield	$550.0	$1,100.0	100.0
Exxon	3,500.0	6,100.0	74.3
Getty	270.0	272.6	0.9
Gulf	1,500.0	2,000.0	33.3
Marathon	166.0	265.0	59.6
Murphy	(2)	172.0	(2)
Skelly	(2)	140.1	(2)
Standard Oil Co. of California	1,200.0	1,600.0	33.3
Standard Oil (Indiana)	1,050.0	1,400.0	33.3
Standard Oil (Ohio)	175.0	300.0	71.4
Sun	375.0	650.0	73.3
Texaco	1,600.0	1,800.0	12.5
Total	[3] 10,386.0	15,799.7	[3] 49.1

[1] Announced through Jan. 22, 1974.
[2] Not available.
[3] Excludes Murphy & Skelly.

Source: Moody's Industrial News Reports.

C. INCOME TAX AND FOREIGN TAX CREDIT STATISTICS

TABLE 19.—NET INCOME AFTER TAX AND THE RATE OF RETURN ON EQUITY OF SELECTED OIL COMPANIES (1963–73)

[In millions of dollars]

Company	1973		1972		1971		1970		1969	
	Net income	Percent return [1]	Net income	Percent	Net income	Percent	Net income	Percent	Net income	Percent
Total	9, 087. 3	15. 1	5, 951. 7	9. 7	6, 007. 3	10. 2	5, 556. 7	10. 4	5, 549. 9	10. 9
Amerada Hess Corp [2]	151. 8	23. 5	46. 2	8. 3	133. 3	24. 0	114. 0	25. 7	86. 5	23. 7
Ashland Oil Corp	93. 3	17. 3	68. 0	13. 5	40. 5	8. 8	52. 0	11. 7	56. 9	13. 3
Atlantic Richfield Co	270. 2	8. 9	192. 5	6. 5	210. 5	7. 3	209. 5	7. 5	230. 1	8. 5
Cities Service Co	135. 6	9. 8	99. 1	6. 9	104. 5	7. 7	118. 6	8. 9	127. 2	10. 0
Clark Oil & Refining Corp	30. 5	29. 9	8. 3	9. 8	3. 6	4. 7	10. 8	14. 0	13. 0	18. 7
Continental Oil Co	242. 7	14. 0	170. 2	10. 4	140. 1	9. 1	160. 3	10. 7	146. 4	9. 8
Exxon Corp	2, 440. 0	18. 5	1, 531. 8	12. 5	1, 516. 6	13. 1	1, 309. 5	12. 0	1, 242. 6	12. 3
Getty Oil Co	135. 0	8. 8	76. 1	5. 2	120. 1	8. 5	103. 2	7. 8	105. 8	8. 3
Gulf Oil Corp [2]	760. 0	14. 0	447. 0	8. 3	561. 0	10. 2	550. 0	10. 4	610. 6	12. 1
Kerr-McGee Corp [2]	58. 8	10. 8	50. 6	10. 1	40. 7	10. 8	35. 9	10. 3	33. 6	10. 3
Marathon Oil Co	129. 4	15. 2	79. 8	10. 2	88. 7	11. 7	86. 5	11. 8	89. 4	12. 1
Mobil Oil Corp	842. 8	15. 7	574. 2	10. 9	540. 8	10. 9	482. 7	10. 4	456. 5	10. 4
Murphy Oil Corp	53. 6	24. 4	14. 3	7. 6	11. 1	6. 2	9. 3	6. 5	6. 2	4. 5
Phillips Petroleum Co	230. 4	12. 1	148. 4	8. 1	132. 3	7. 6	132. 3	7. 8	127. 8	7. 7
Shell Oil Co	332. 7	10. 9	260. 5	8. 9	244. 5	8. 7	237. 2	8. 6	291. 2	10. 9
Skelly Oil Co	44. 0	7. 5	37. 6	6. 8	38. 3	7. 0	36. 1	7. 0	38. 4	7. 7
Standard Oil of California	843. 6	14. 4	547. 1	10. 5	511. 1	10. 4	454. 8	9. 8	453. 8	10. 3
Standard Oil Co. (Indiana)	511. 2	12. 4	374. 7	10. 0	340. 6	9. 6	314. 0	9. 3	321. 0	10. 0
Standard Oil Co. (Ohio)	74. 1	6. 6	59. 7	5. 6	58. 8	5. 7	64. 4	6. 3	51. 9	5. 3
Sun Oil Co	230. 0	12. 3	154. 7	8. 8	151. 6	8. 9	139. 1	8. 4	152. 3	9. 4
Texaco Inc	1, 292. 4	25. 0	889. 0	12. 4	903. 9	13. 4	822. 0	13. 1	769. 8	13. 1
Union Oil of California	180. 2	10. 6	121. 9	7. 6	114. 7	7. 4	114. 5	7. 6	138. 9	9. 5

See footnotes, p. 20.

TABLE 19.—NET INCOME AFTER TAX AND THE RATE OF RETURN ON EQUITY OF SELECTED OIL COMPANIES (1963-73)—Continued

[In millions of dollars]

Company	1968		1967		1966		1965		1964		1963	
	Net income	Percent	Net income	Percent	Net income	Percent	Net income	Percent	Net income	Percent	Net income	Percent
Total	5,539.4	11.8	5,175.6	12.0	4,701.9	11.7	4,203.7	11.2	3,846.9	10.8	3,579.7	11.0
Amerada Hess Corp [2]	89.8	19.8	76.8	22.2	73.1	22.6	63.4	22.2	59.4	23.0	52.4	22.7
Ashland Oil Corp	53.6	14.6	48.4	15.5	45.0	17.6	35.8	15.5	23.7	14.0	18.1	11.7
Atlantic Richfield Co	105.8	7.8	130.0	10.2	113.5	9.4	90.1	8.1	47.1	7.3	44.0	7.0
Cities Service Co	121.3	9.9	127.8	10.9	120.1	11.0	100.6	10.2	84.5	9.1	77.5	8.6
Clark Oil & Refining Corp	12.1	20.4	11.5	23.4	9.6	24.2	8.7	27.8	2.1	8.9	1.5	6.8
Continental Oil Co	150.0	10.6	136.1	10.1	115.6	10.3	96.2	10.2	100.1	11.1	87.4	10.5
Exxon Corp	1,276.7	13.0	1,155.0	12.3	1,090.1	12.1	1,021.4	11.9	1,050.6	12.6	1,019.5	12.8
Getty Oil Co	98.3	8.3	118.2	10.5	92.3	9.0	57.7	6.9	43.0	5.6	43.0	6.1
Gulf Oil Corp [2]	626.6	13.2	568.3	12.9	504.8	12.3	427.2	11.2	395.1	11.0	371.4	10.9
Kerr-McGee Corp [2]	36.4	12.0	32.1	11.5	33.0	12.9	25.1	14.6	20.7	14.7	18.8	15.8
Marathon Oil Co	83.8	12.7	73.9	12.3	68.8	12.3	60.1	11.3	60.4	11.8	49.1	10.2
Mobil Oil Corp	430.7	10.3	385.4	9.8	356.1	9.5	310.2	9.1	294.2	8.8	271.9	8.6
Murphy Oil Corp	7.3	5.4	8.2	6.2	8.4	7.6	6.4	6.1	4.3	4.9	4.8	5.7
Phillips Petroleum Co	129.9	8.0	164.0	11.0	138.4	10.3	127.7	9.9	115.0	9.3	108.1	8.9
Shell Oil Co	312.1	12.3	284.9	13.8	255.2	13.4	234.0	13.4	198.2	12.3	179.9	12.0
Skelly Oil Co	40.3	8.5	42.0	9.3	37.0	8.8	34.0	8.8	25.7	7.1	24.2	7.0
Standard Oil of California	451.8	10.7	409.4	10.3	401.2	10.8	391.2	11.1	345.3	10.5	322.1	10.5
Standard Oil Co. (Indiana)	309.5	10.1	280.9	9.6	255.9	9.1	219.3	8.1	194.9	7.5	183.1	7.3
Standard Oil Co (Ohio)	70.1	13.0	67.1	14.5	56.9	13.3	49.7	12.7	43.8	12.0	38.9	11.4
Sun Oil Co	164.4	10.9	156.2	15.2	100.6	10.8	85.5	10.1	68.5	8.8	61.2	8.4
Texaco Inc	819.6	14.5	754.4	14.8	692.1	15.0	636.7	14.9	577.4	14.6	547.6	15.6
Union Oil of California	149.8	10.9	145.0	11.2	134.2	11.2	112.8	10.4	92.9	14.7	55.2	9.9

[1] Equity as of Sept. 30, 1973.

[2] Full years income estimated on the basis of income reported for the 1st 9 months of 1973.

Source: Standard and Poor's Industrial Survey, Moody's Industrial Manual, Quarterly Financial Statements filed with the Security Exchange Commission (10 Q forms). Office of the Secretary of Treasury, Office of Tax Analysis, Feb. 1, 1974.

TABLE 20.—CAPITAL EXPENDITURES, NET INCOME, AND RATES OF RETURN U.S. OIL COMPANIES 1960–73

[Dollar amount in millions]

	Capital expenditures[1]	Net income	Rate of return on net assets	
			U.S. oil companies	Other manufacturing
1960	$6,635	$3,024	10.2	10.7
1961	6,640	3,225	10.4	9.8
1962	7,270	3,298	10.5	11.0
1963	7,415	3,920	11.4	11.6
1964	8,230	4,240	11.6	12.9
1965	8,925	4,638	11.9	14.6
1966	9,845	5,175	12.6	14.7
1967	10,905	5,696	12.9	12.6
1968	11,985	6,128	12.9	13.2
1969	12,005	6,087	12.1	12.6
1970	11,715	5,892	10.9	9.8
1971	11,900	6,419	11.2	10.7
1972	13,955	6,525	10.8	12.5
1973 (estimate)	20,000	9,550	15.0	14.0

[1] Domestic and foreign but exclusive of noncapital exploration expenses which for 1972 were estimated at $1,200,000,000 or about 9 percent of total capital expenditures.

Source: First National City Bank, Chase Manhattan Bank.

TABLE 21.—NET INCOME AS A PERCENT OF NET WORTH: PETROLEUM, OTHER SELECTED INDUSTRY GROUPS, TOTAL MANUFACTURING AND TOTAL MINING, 1963 THROUGH 1972

[In percent]

Industrial groups	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972[1]	10-year average 1963–72
Drugs and medicines	18.7	19.8	21.2	22.5	20.3	19.8	17.7	18.8	19.0	19.7	19.5
Soap and cosmetics	16.9	17.6	17.0	17.9	19.4	18.9	18.6	18.7	19.3	20.4	18.7
Instruments, photo goods, etc	13.4	16.6	19.2	21.2	20.3	19.2	18.7	15.8	15.4	16.8	17.6
Office equipment and computers	18.0	17.9	18.7	18.1	17.8	19.0	17.4	13.9	12.5	13.8	15.8
Autos and trucks	19.6	19.9	23.4	17.8	12.0	16.6	13.8	5.8	15.0	17.2	15.6
Tobacco products	14.0	13.4	13.3	13.9	14.8	14.6	14.6	16.4	16.6	16.2	14.9
Printing and publishing	12.4	14.6	16.9	17.9	15.4	14.9	14.8	12.5	12.6	13.7	14.3
Household appliances	12.8	14.1	15.0	15.0	14.7	14.0	13.5	11.9	12.1	15.4	13.8
Clothing and apparel	12.0	13.6	16.3	16.2	13.6	15.7	13.3	10.7	10.8	11.1	12.8
Electrical and electronic equipment	10.7	11.1	14.8	16.7	15.4	14.1	13.0	10.1	10.7	13.0	12.7
Dairy products	11.2	12.2	12.5	12.6	11.8	11.7	11.8	12.0	12.6	12.6	12.1
Chemical products	13.2	14.2	15.4	14.6	11.5	11.7	11.4	9.5	9.7	11.3	12.0
Automotive parts	11.4	12.2	13.4	14.0	11.4	12.6	13.0	8.9	10.4	13.1	11.9
Lumber and wood products	8.1	11.5	11.5	11.0	9.4	14.1	15.2	10.2	11.2	13.9	11.9
Petroleum production and refining	11.5	11.5	11.9	12.6	12.8	13.1	11.9	11.0	11.2	10.8	11.8
Glass products	11.6	12.1	13.5	12.7	11.1	11.9	12.2	9.0	11.1	12.5	11.7
Farm, construction equipment	9.4	13.7	14.4	14.7	10.9	8.4	10.4	9.3	8.8	12.1	11.1
Aerospace	11.7	13.1	15.4	15.7	13.4	13.9	11.4	6.7	6.3	8.8	11.0
Rubber and allied products	9.9	11.4	11.8	12.8	10.8	12.7	11.1	7.6	9.8	11.7	10.9
Nonferrous metals	7.1	9.2	11.8	15.7	11.4	11.1	12.5	10.6	5.0	7.2	10.0
Distilling	7.9	8.5	9.6	10.4	10.5	10.2	10.4	10.1	10.3	10.7	9.9
Building, heating and plumbing equipment	6.4	8.9	10.6	12.0	11.3	11.3	8.5	7.0	8.4	11.6	9.6
Paper and allied products	9.2	10.5	10.5	11.8	9.5	10.7	10.3	7.4	5.6	8.7	9.2
Textile products	7.1	8.9	11.6	12.3	8.8	9.8	8.8	6.4	6.6	7.8	8.7
Iron and steel	7.3	9.0	9.6	9.4	7.4	8.5	7.4	4.6	4.6	6.2	7.3
Total mining	9.1	10.4	12.2	13.9	16.2	15.0	12.6	11.7	8.5	9.6	11.7
Total manufacturing	11.6	12.6	13.9	14.2	12.6	13.3	12.4	10.1	10.8	12.1	12.2

[1] Preliminary.

Source: First National City Bank, monthly letter, April of each year; May 1973.

TABLE 22.—NET INCOME AFTER TAXES: PETROLEUM VERSUS TOTAL MANUFACTURING 1963–72

[Dollar amounts in millions]

	Petroleum production and refining		Total manufacturing	
	Total	Percent change	Total	Percent change
Period:				
1963	$3,967.8		$16,308.3	
1964	4,228.5	+7	18,564.7	+14
1965	4,630.1	+9	22,000.9	+19
1966	5,161.3	+11	24,429.2	+11
1967	5,679.4	+10	23,394.4	−4
1968	6,088.0	+7	26,098.3	+12
1969	6,008.3	−1	26,627.7	+2
1970	5,937.5	−1	23,900.8	−10
1971	6,400.8	+8	26,942.3	+13
1972	6,525.0	+2	31,958.8	+19

Source: First National City Bank, "Monthly Economics Letter," April of each year; revised data except for 1972.

TABLE 23.—AFTER-TAX PROFITS OF LEADING CORPORATIONS FOR THE 4TH QUARTER 1973

			Percent change	
Industry groups	Number of firms	4th quarter 1973, net income (millions)	4th quarter 1972 to 4th quarter 1973	3d quarter 1973 to 4th quarter 1973
Food products	47	$265.1	+19	+16
Beverages	9	57.9	+10	+11
Tobacco	2	66.5	+10	−16
Textiles	22	69.0	+36	+18
Apparel	10	3.0	−77	−83
Rubber and products	10	28.6	+25	+26
Paper and products	20	149.9	+38	−1
Printing and publishing	18	34.4	+16	+67
Chemicals, paint, etc	38	452.3	+36	−2
Drugs, soap, and cosmetics	27	385.5	+10	+3
Petroleum production and refining	31	2,535.2	+61	+22
Cement, glass, and stone	19	65.7	+9	−12
Iron and steel	27	291.8	+48	+12
Nonferrous metals	17	201.8	+77	+46
Fabricated metal products	36	75.3	+29	−20
Machinery	54	179.5	+22	+4
Office and computing equipment	19	574.1	+37	+21
Electrical equipment and electronics	85	412.9	+6	+15
Automobiles and parts	19	581.9	−20	+82
Aerospace	11	84.8	+7	−11
Instruments, photographic goods	35	186.4	+19	+2
Other manufacturing	47	194.8	+21	+6
Total manufacturing	603	6,896.2	+29	+17
Mining and quarrying	7	61.3	+180	+28
Trade	89	164.9	+31	+45
Services and amusements	94	121.0	+21	+12
Railroads	12	189.3	+19	+45
Common carrier trucking	11	53.7	+12	+52
Air and other transportation	11	13.5	−60	−87
Electric power and gas	67	722.2	+10	−8
Telephone and telegraph	2	752.5	+12	0
Commercial bank holding companies	58	658.8	+15	+16
Total nonmanufacturing	351	2,737.1	+14	+7
Grand total	954	9,633.3	+25	+13
Excluding petroleum production and refining:				
Manufacturing excluding petroleum	572	4,361.0	+16	+14
Total excluding petroleum	923	7,098.1	+15	+10

Source: Preliminary tabulation by First National City Bank.

TABLE 24.—RANK IN PROFITABILITY OF OIL COMPANIES AMONG 843 LEADING CORPORATIONS SURVEYED BY "FORBES" MAGAZINE

Company	Ranking on basis of return on equity	
	5-year average	Latest 12 months
Amerada Hess	59	190
Tesoro Petroleum	66	70
Clark Oil & Refining	120	10
American Petrofina	160	196
Texaco	235	221
Exxon	269	138
Pennzoil	281	308
Ashland Oil	371	121
Mobil Oil	400	298
Marathon	404	331
Kerr-McGee	424	509
Standard Oil of California	427	331
Standard Oil (Indiana)	479	420
Continental Oil	495	426
Sun Oil	505	359
Gulf Oil	512	385
Shell Oil	526	490
Union Oil of California	543	442
Murphy Oil	557	63
Occidental Petroleum	577	717
Cities Service	603	668
Diamond Shamrock	618	426
Phillips Petroleum	633	622
Getty Oil	637	713
Atlantic Richfield	646	689
Standard Oil (Ohio)	685	758
Signal Companies	760	682

Source: "Who's Where in Profitability," Forbes, Jan. 1, 1974. Rankings for latest 12-month period derived by API.

TABLE 25.—ESTIMATED PROFIT INCREASES IN 1974 THAT WOULD RESULT FROM PRICE INCREASES

Average price per barrel crude [1]	Annual after-tax profits increase (billions)	
	22 majors [2]	Total [3]
1974:		
$6.50	$1.7	$3.3
$8.00	3.4	6.7
$9.00	4.5	8.8
$10.00	5.6	11.0

[1] Includes crude oil and lease condensates but excludes natural gas and natural gasoline.
[2] Testimony of Secretary of the Treasury George Shultz.
[3] Includes all corporations, partnerships, and proprietorships.

TABLE 26.—PETROLEUM INDUSTRY INCOME SUBJECT TO TAX, U.S. TAX, FOREIGN TAX CREDIT CLAIMED, AND U.S. TAX AFTER CREDITS, BY CRUDE PETROLEUM INDUSTRY AND PETROLEUM REFINING AND RELATED INDUSTRIES, 1964-71

[In millions of dollars]

Year	Total				Crude petroleum and natural gas industry				Petroleum refining and related industries			
	Income subject to tax	Income tax before credits	Foreign tax credit claimed	Income tax after foreign tax and investment credits	Income subject to tax	Income tax before credits	Foreign tax credit claimed	Income tax after foreign tax and investment credits	Income subject to tax	Income tax before credits	Foreign tax credit claimed	Income tax after foreign tax and investment credits
1964	2, 752	1, 332	1, 002	280	788	380	232	91	1, 964	952	720	189
1965	3, 309	1, 545	1, 030	417	882	405	324	73	2, 427	1, 140	706	344
1966	4, 259	1, 927	1, 131	655	1, 060	495	429	58	3, 199	1, 432	702	597
1967	4, 602	2, 150	1, 351	646	1, 091	505	436	57	3, 511	1, 645	915	589
1968	4, 652	2, 400	1, 609	595	1, 228	636	549	75	3, 424	1, 764	1, 060	520
1969	4, 651	2, 371	[1] 1, 779	498	1, 253	647	562	75	3, 398	1, 724	1, 217	423
1970 [2]	5, 258	2, 680	[1] 1, 951	631	1, 398	683	592	89	3, 860	1, 997	1, 359	542
1971 [2]	6, 492	3, 232	[1] 3, 444	688	2, 124	1, 020	913	97	4, 368	2, 212	1, 531	591

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[1] The foreign tax credit claimed by the petroleum industry is 45% of the foreign tax credit claimed by all industries for 1969, 42% for 1970, and 45% for 1971.

[2] Preliminary

D. REVENUE ESTIMATES AND SUPPORTING DATA

TABLE 27.—REVENUE GAINS FROM ALTERNATIVE PROPOSALS TO TAX EXCESS PROFITS FROM OIL

ASSUMPTION: THE LONGRUN SUPPLY PRICE OF CRUDE OIL IS $8

[Amounts in billions of dollars]

	Gross revenue					Net revenue				
	1974 [1]	1975	1976	1977	1978	1974	1975	1976	1977	1978
EXCESS PROFITS TAX [2]										
Income subject to tax in excess of 1969–72 average income is defined as excess profits, taxed at 30 percent rate in addition to normal tax and surtax	2.1	2.1	2.1			2.1	2.1	2.1		
TREASURY PROPOSAL										
Windfall profits tax [3] [4]	3.4	4.1	2.8			2.1	2.5	1.7		
SUBSTITUTE FOR THE TREASURY PROPOSAL [5] [6]										
Gross income per barrel of crude oil is reduced for the purposes of percentage depletion on a dollar per dollar basis from a maximum allowable price of $4 a barrel by the amount by which the price exceeds $4 a barrel	1.7	2.4	3.0	3.2	3.4	1.4	2.0	2.5	2.7	2.8
SUPPLEMENT TO THE TREASURY PROPOSAL										
The same as the substitute referred to above except that the change is phased in at the rate of 20 percent a year (fully effective in 1978):										
In isolation [5] [7]	1.1	1.8	2.5	3.0	3.4	.9	1.5	2.1	2.5	2.8
Combined with the Treasury proposal [3] [8]	4.2	5.4	5.0	3.0	3.4	2.7	3.6	3.5	2.5	2.8

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[1] All estimates for 1974 are based on the assumption that the proposals are in effect for the entire year.

[2] The estimates are based on the assumption that income subject to tax of corporations in petroleum industry will increase 30 percent in 1974 over the 1973 level and will remain at the same level through 1976.

[3] Net revenue reflects deductibility of windfall profits tax from gross income, the disallowance of percentage depletion on income equal to windfall profits tax, and the changes in minimum tax.

[4] If the estimates were based on the assumption that the long run price of oil is $7 per barrel, gross revenue would be $3,200,000,000 for 1974; $3,400,000,000 for 1975; and $1,400,000,000 for 1976. The net revenue would be $1,900,000,000 for 1974; $2,000,000,000 for 1975; and $900,000,000 for 1976.

[5] Net revenue reflects impact of minimum tax.

[6] If estimates were based on a $7 supply price of crude oil and a $3.50 break even point the gross revenue would be $1,900,000,000 for 1974; $2,600,000,000 for 1975; $2,800,000,000 for 1976 and 1977; and $2,900,000,000 for 1978. The net revenue would be $1,600,000,000 for 1974; $2,200,000,000 for 1975; $2,300,000,000 for 1976 and 1977; and $2,500,000,000 for 1978.

[7] If estimates were based on a $7 supply price of crude oil and a $3.50 break even point, the gross revenue would be $1,300,000,000 for 1974; $2,000,000,000 for 1975; $2,400,000,000 for 1976; $2,700,000,000 for 1977; and $2,900,000,000 for 1978. The net revenue would be $1,100,000,000 for 1974; $1,600,000,000 for 1975; $2,000,000,000 for 1976; $2,200,000,000 for 1977; and $2,500,000,000 for 1978.

[8] If estimates were based on a $7 supply price of crude oil and a $3.50 break even point, the gross revenue would be $4,100,000,000 for 1974; $5,000,000,000 for 1975; $3,600,000,000 for 1976; $2,700,000,000 for 1977; and $2,900,000,000 for 1978. The net revenue would be $2,400,000,000 for 1974; $3,100,000,000 for 1975; $2,600,000,000 for 1976; $2,200,000,000 for 1977; and $2,500,000,000 for 1978.

TABLE 28.—ESTIMATED PRICES AND OUTPUT OF CRUDE OIL, 1973–78

[Assumption: The longrun supply price of crude oil is $8]

	1973	1974	1975	1976	1977	1978
Controlled ("old") oil:						
Average price per barrel (dollars)		5.62	6.63	7.62	8.00	8.00
Total output (million barrels)		2,690	2,610	2,530	2,657	2,789
As percent of controlled and free output		77.3	70.4	64.2	64.2	64.2
Free ("new") oil:						
Average price per barrel (dollars)		10.00	9.35	8.36	8.00	8.00
Total output (million barrels)		790	1,100	1,410	1,481	1,555
Controlled and free oil:						
Average price per barrel (dollars)	3.67	6.61	7.44	7.89	8.00	8.00
Total output (million barrels)	3,400	3,480	3,710	3,940	4,138	4,344

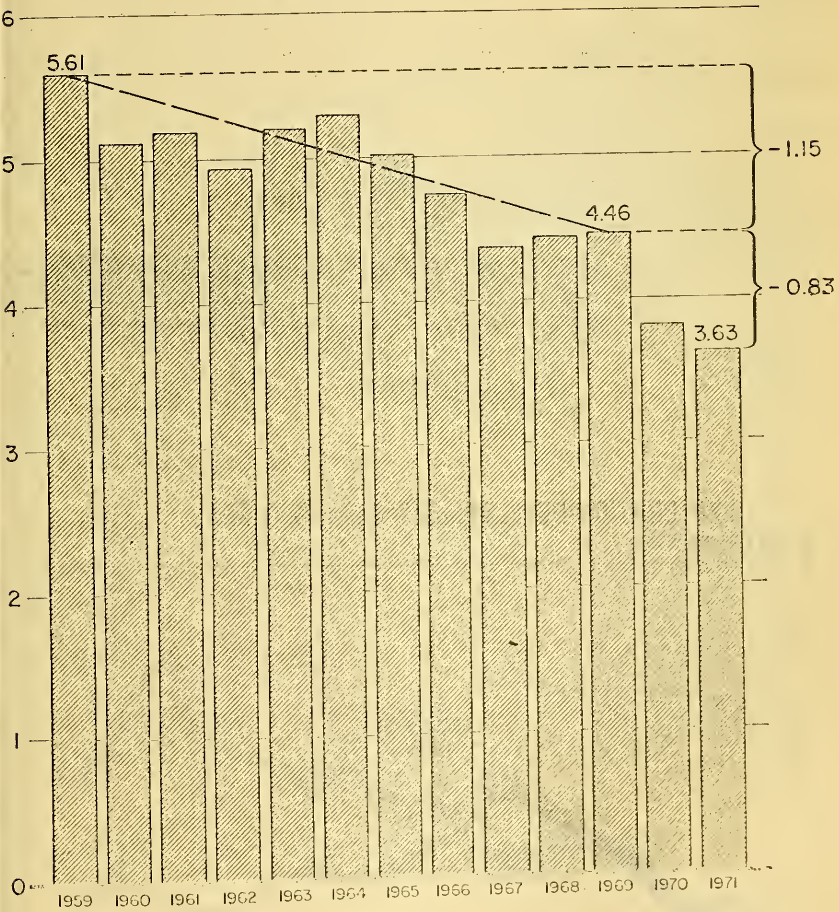
Note: These estimates are intended to be indicative of a reasonable outcome which it was necessary to assume for the purpose of the revenue estimates shown above. They are not intended to be the staff's precise estimates of expected prices and output.

CHARTS

CHART 1

U.S. PETROLEUM EXPLORATION AND DEVELOPMENT EXPENDITURES
1959-1971

(Billions of 1970 dollars)



Note: Excludes offshore and North Slope lease bonus payments as not contributing directly to development of reserves

IPAA CHART
March 1973

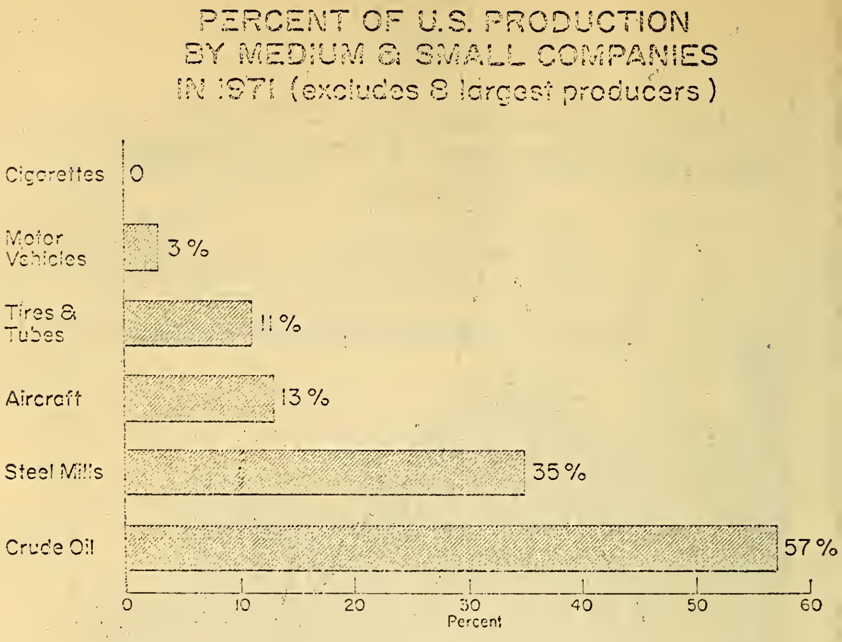


CHART 2

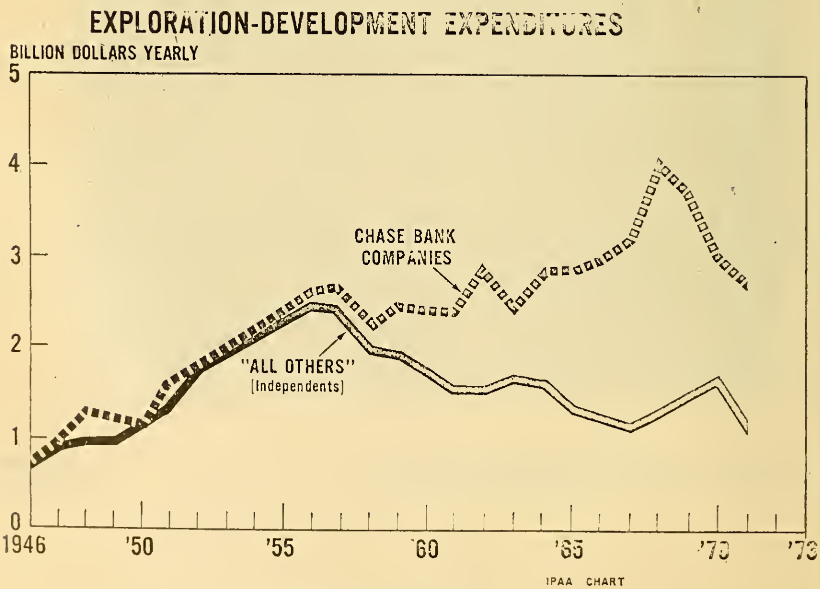
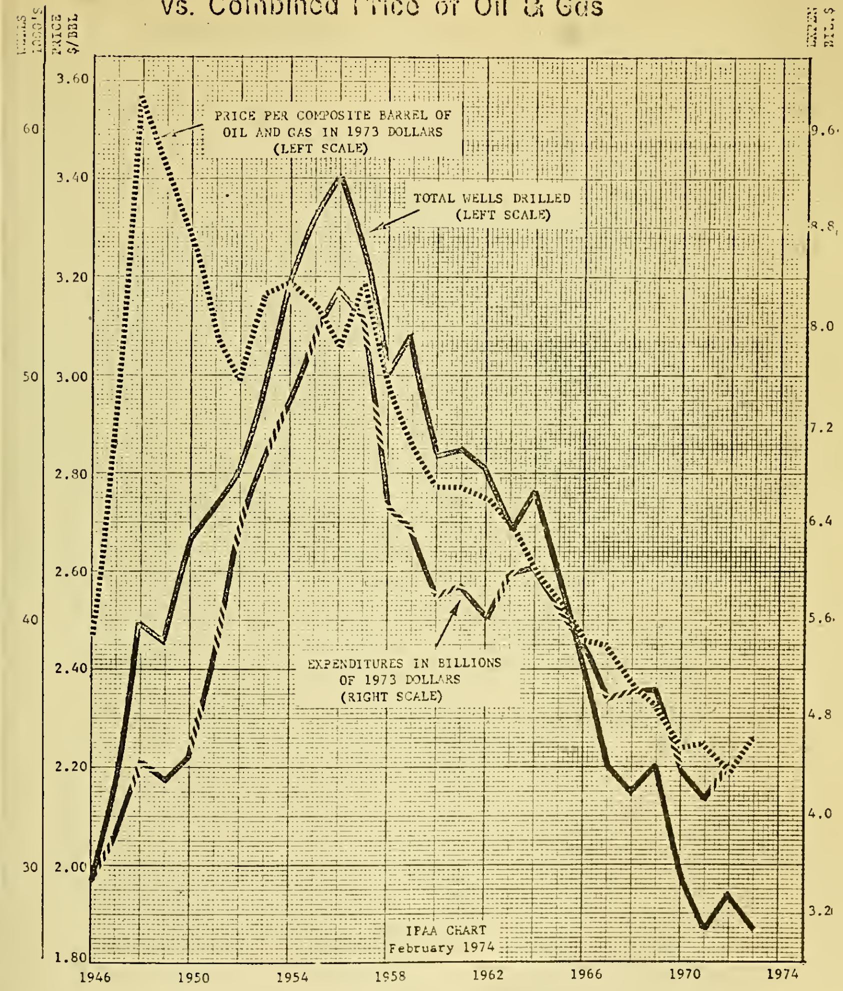


CHART 3

U.S. Petroleum Exploration & Development Expenditures vs. Combined Price of Oil & Gas



PRICE PER COMPOSITE BARREL OF OIL AND GAS IN 1973 DOLLARS (LEFT SCALE)

TOTAL WELLS DRILLED (LEFT SCALE)

EXPENDITURES IN BILLIONS OF 1973 DOLLARS (RIGHT SCALE)

IPAA CHART
February 1974

Chart 4